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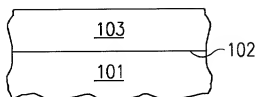


FIG. 1A

STEP 1: GATE OXIDATION
0.8-2.0 nm

FIG. 1B

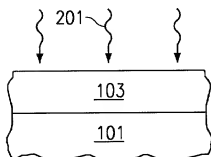


FIG. 2A

STEP 2: PLASMA NITRIDATION
100-500W, 20-80 mTorr,
He/N₂=75/25%, 10-60s

FIG. 2B

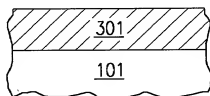


FIG. 3A

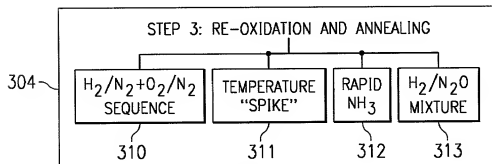


FIG. 3B

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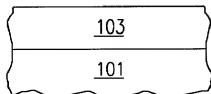


FIG. 4A

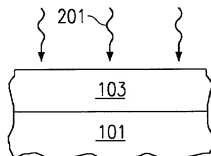


FIG. 4B

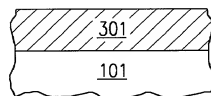


FIG. 4C

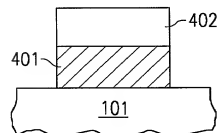


FIG. 4D

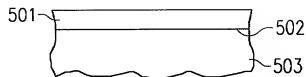


FIG. 5A

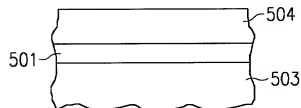


FIG. 5B

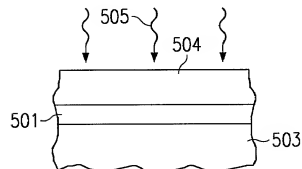


FIG. 5C

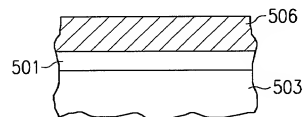


FIG. 5D

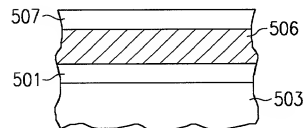


FIG. 5E

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FIG. 6

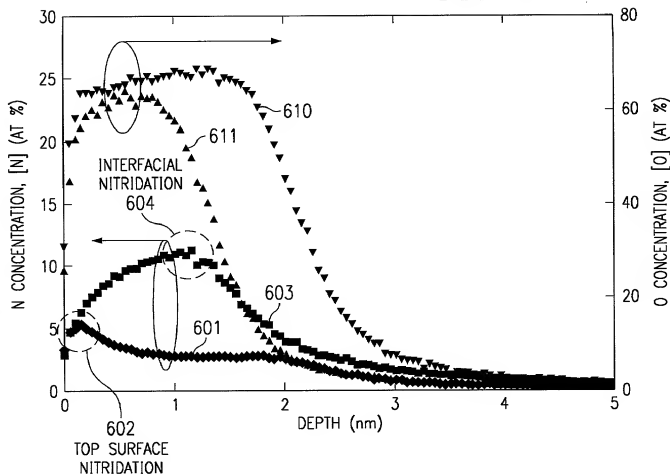
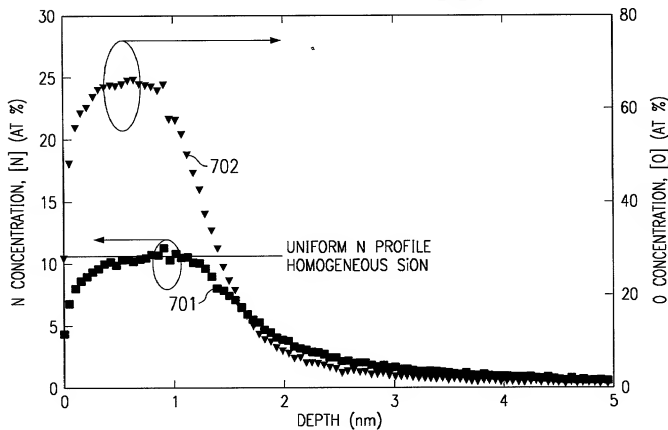


FIG. 7



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TEMPERATURE: $TEMP_1 = 600-1000^\circ C$
 $TEMP_2 = 800-1000^\circ C$
 TIME: $t_1 = 5-60s$
 $t_2 = 5-60s$

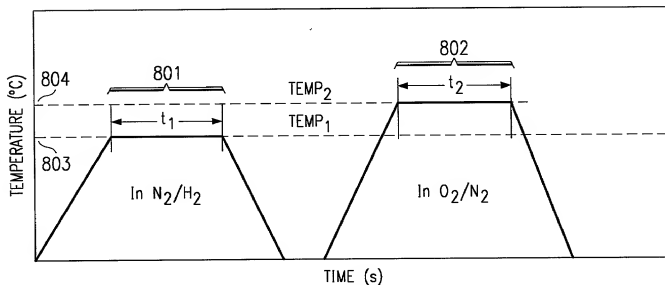


FIG. 8

TEMPERATURE: $TEMP_2 > TEMP_1, T_2 > T_1$
 TIME: $t_2 \ll t_1$

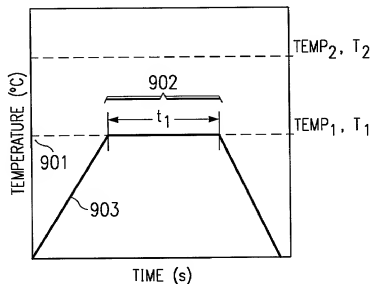


FIG. 9A

TEMPERATURE: $TEMP_2 > TEMP_1, T_2 > T_1$
 TIME: $t_2 \ll t_1$

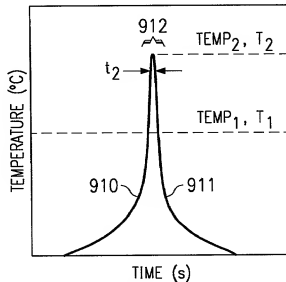


FIG. 9B

100260*44258860

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TEMPERATURE: $T_1 = \text{TEMP}_1 = 600 - 1000^\circ\text{C}$

TIME: $t_1 = 5 - 60\text{s}$

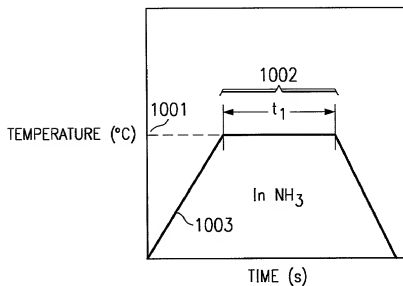


FIG. 10

TEMPERATURE: $T_1 = \text{TEMP}_1 = 800 - 1050^\circ\text{C}$

TIME: $t_1 = 5 - 60\text{s}$

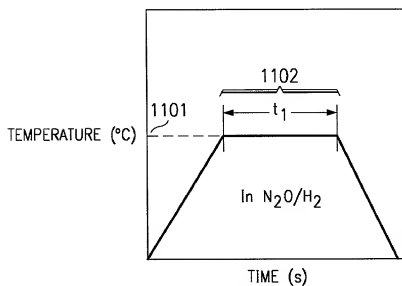


FIG. 11

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